The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 9

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANK C. GENOVESE

Appeal No. 1999-1117
Application 08/674,308[1]

ON BRIEF

Before BARRETT, LALL, and BLANKENSHIP, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

[1] Application for patent filed July 1, 1996, entitled "Single Sensor Laser Beam Synchronizer And Intensity Regulator."

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1-9.

We reverse.

BACKGROUND

The disclosed invention relates to laser beam intensity control and start of scan detection in laser raster output scanners. The control of laser beam intensity is important for optimal exposure control and the detection of the start of each scan line enables the synchronization of the modulation with the position of the photoreceptor. In the prior art, start of scan detection and beam intensity control were performed using separate photodetectors and separate electronic systems. The invention relates to performing start of scan detection and beam intensity control using a single photosensor.

Claim 1 is reproduced below.

> 1. A raster output scanner, comprising:
>
> a laser source for generating a laser beam having an intensity that is dependent upon a beam control signal;
>
> a rotating polygon for sweeping the laser beam along a scan line plane;
>
> an optical fiber with a light receiving end and an [sic] light exit end, wherein said light receiving end is

positioned in the scan line plane so as to intercept at least a portion of the sweeping laser beam;

a photodetector for converting the intercepted laser beam that leaves said exit end into a beam current which depends upon said laser beam intensity;

a scan detection circuit for producing a start-of-scan signal from said beam current; and

a beam intensity circuit for producing said beam control signal from said beam current.

The Examiner relies on the following references:

Saito	4,978,975	December 18, 1990
Okinoshima et al. (Okinoshima)	5,314,979	May 24, 1994
Morehouse, Jr. et al. (Morehouse)	5,519,473	May 21, 1996
Caruso	5,592,298	January 7, 1997 (filed June 3, 1994)
Asada (United Kingdom patent application)	GB 2,235,317	February 27, 1991

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Asada and Saito.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Asada and Saito, further in view of Okinoshima.

Claims 4, 5, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Caruso, Asada, and Saito.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Caruso, Asada, and Saito, further in view of Okinoshima.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Caruso, Asada, and Saito, further in view of Morehouse.

We refer to the final rejection (Paper No. 5) (pages referred to as "FR__") and the examiner's answer (Paper No. 8) (pages referred to as "EA__") for a statement of the Examiner's position, and to the brief (Paper No. 7) for a statement of Appellant's arguments thereagainst.

OPINION

The only issue is whether the claims recite that both start of scan detection and beam intensity control are derived from the output of a single photosensor. Appellant relies solely on this argument for patentability of the claims. The Examiner states that the feature of only one photosensor for producing both a start of scan signal and beam intensity signal is not recited in the claims (FR8; EA9-10), which explains why the Examiner's rejection does address this feature. We agree with Appellant's findings that none of the

references teach or suggest this feature. In particular, Asada teaches two separate sensors, one for scan detection (e.g., photodetector 22 in figure 2) and one for intensity control (e.g., photodetector 9 in figure 2).

Claims 1 and 4 recite, in relevant part:

> a photodetector for converting the intercepted laser beam that leaves said exit end into a beam current which depends upon said laser beam intensity;
>
> a scan detection circuit for producing a start-of-scan signal from said beam current; and
>
> a beam intensity circuit for producing said beam control signal from said beam current. [Emphasis added.]

Only one photodetector which produces a beam current is recited. Both the scan detection circuit and the beam intensity circuit refer to "said beam current," which must be the beam current produced by the single claimed photodetector, the only beam current for which there is antecedent basis. The Examiner has not explained how the claim language can be interpreted in any other way. Accordingly, we conclude that the Examiner erred in interpreting the claims as not requiring the feature of only one photosensor for producing both a start of scan signal and beam intensity signal. Because none of the references teach or suggest that both start of scan detection

and beam intensity control are derived from the beam current output of a single photosensor, the rejections of claims 1-9 are reversed.

REVERSED

LEE E. BARRETT Administrative Patent Judge	)	
PARSHOTAM S. LALL Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)	

Ronald Zibelli
XEROX CORPORATION
Xerox Square 20A
Rochester, NY 14644